Application No. 09/445,174 Filing Date: April 24, 2000

Docket No. 294-78

Page 2 of 14

- 18. A diagnostic test kit according to claim 16, wherein the probe comprises nucleic acid sequences complementary to both sides of the deletion.
- 56. (New) A diagnostic test kit according to claim 16, wherein the probe is labeled.
- 57. (New) A diagnostic test kit according to claim 15, wherein the means comprises at least one primer pair for amplification.
- 58. (New) A diagnostic test kit according to claim 15, wherein the means comprises at least two primer pairs for amplification, and wherein the two primer pairs comprise a nested set.
- 59. (New) A diagnostic test kit according to claim 57, wherein the primer pair is suitable for amplification by PCR or NASBA.
- 60. (New) A labeled probe for detecting a deletion of a stretch of nucleotides from a BRCA1 gene, wherein said deletion comprises exon 13 or exon 22.
- 61. (New) The labeled probe according to claim 60, wherein the probe comprises nucleic acid sequences complementary to both sides of the deletion.
- 62. (New) The labeled probe according to claim 61, wherein the probe comprises a nucleic acid sequence which is the product of a fusion between two ALU-elements in the BRCA1 gene.
- 63. (New) A method for determining the presence in a sample of a nucleic acid derived from a BRCA1 gene having a deletion of a stretch of nucleotides, wherein said deletion comprises exon 13 or exon 22; the method comprising:
  - (i) contacting said sample with at least one probe which alone or together with a means for detecting said deletion, distinguishes between a BRCA1 gene having said deletion and a BRCA1 gene not having said deletion, and



Application No. 09/445,174 Filing Date: April 24, 2000

Docket No. 294-78

Page 3 of 14

- (ii) allowing hybridization between said probe and said nucleic acid to form a hybridization product, and
  - (iii) identifying the hybridization product.
- 64. (New) The method according to claim 63, wherein the probe is labeled.
- 65. (New) The method according to claim 63, wherein the probe comprises nucleic acid sequences complementary to both sides of the deletion.
- 66. (New) The method according to claim 63, wherein the nucleic acid derived from a BRCA1 gene is amplified.

  (New) The method according to claim 66, wherein the probe comprises a nucleic a
  - 67. (New) The method according to claim 66, wherein the probe comprises a nucleic acid sequence which is the product of a fusion between two ALU-elements in the BRCA1 gene.
  - 68. (New) The method according to claim 63, wherein the hybridization product is quantified.
  - 69. (New) A method for determining the presence in a sample of a nucleic acid derived from a BRCA1 gene having a deletion of a stretch of nucleotides, wherein said deletion comprises exon 13 or exon 22; the method comprising:
    - (i) contacting said sample with a primer pair which alone or together with a means for detecting said deletion, distinguishes between a BRCA1 gene having said deletion and a BRCA1 gene not having said deletion,
      - (ii) amplifying said sample to form an amplified product, and
      - (iii) identifying the amplified product.
  - 70. (New) The method according to claim 69, further comprising contacting the amplified product with a second primer pair for amplification, and wherein the two primer pairs comprise a nested set.